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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/670,272	09/26/2003	Uwe D. Schaible	PAT 52154-2	4940
26123	7590	11/02/2004	EXAMINER	
BORDEN LADNER GERVAIS LLP WORLD EXCHANGE PLAZA 100 QUEEN STREET SUITE 1100 OTTAWA, ON K1P 1J9 CANADA			SOUW, BERNARD E	
			ART UNIT	PAPER NUMBER
			2881	
DATE MAILED: 11/02/2004				

Please find below and/or attached an Office communication concerning this application or proceeding.

Att

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/670,272	SCHAIBLE ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Bernard E Souw	2881	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 29 June 2004.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-27 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-27 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 26 September 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)             | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                                    |

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

1. Claims 1-4, 11-14 and 21-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Baarman et al. USPAT 6,436,299) in view of Wekhof (USPAT 5,144,146).

Baarman et al. teach an ultraviolet (UV) fluid treatment system shown in Fig.1 and Figs.2A-C, comprising a fluid treatment zone having a fluid inlet (32) and a fluid outlet (34), a UV emitter (60) mounted in the fluid treatment zone, as recited in Col.5/ll.45-65 and Col.6/ll.11-49; a sensor unit disposed within the fluid treatment zone as recited in Col.2/ll.59-65, the sensor unit including at least fluid flow sensing means (104) to sense fluid flow within the fluid treatment zone and UV sensing means to sense UV light levels, an intelligent driver (102) for receiving a fluid flow indication and a UV light level indication from the sensor unit, and for controlling operation of the UV emitter in response to at least one of the fluid flow indication and the UV light level indication; and an indicator (106) in communication with the intelligent driver for providing a user with information related to operation of the fluid treatment system, as recited in Col.6/ll.66-67 and Col.7/ll.1-28.

However, the UV light source (60) in Baarman's fluid treatment system is located outside of the fluid. Wekhof teaches to place the UV light source (12) within the fluid inside the fluid chamber 10, as shown in Fig.1 and expressly recited in Col.2/ll.64-68.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Baarman's fluid treatment system by putting the ultraviolet source inside the chamber, i.e., within the fluid itself, as taught by Wekhof, in order to achieve a higher efficacy of UV treatment owing to an absence of UV absorption by the separating walls between the fluid and the UV light source.

► Regarding claim 2, Baarman's UV emitter (60) shown in Fig.2A-C, or (300, 302) shown in Figs.5 and 6, is a mercury vapor lamp, as implicated in Col.15/ll.56-60.

► Regarding claim 3, Baarman's sensor unit(s) 104, 108, 110, 112 and 114 are self-contained within a housing 12 shown in Fig.1, which also shows a lens 28 accommodating a display 106 shown in Fig.3, as recited in Col.5/ll.46-65 and Col.7/ll.16-28.

► Regarding claim 4, Baarman's sensor unit(s) 104, 108, 110, 112 and 114 is (are) remote from the UV emitter, as shown in Fig.3.

► Regarding claims 11, 12, 21, 23 and 26, Baarman's intelligent driver (102+14), as shown in Fig.3 and recited in Col.6/ll.50-65, includes a lamp driver circuit (14) under control of a ballast microprocessor (102, 103, 122), as recited in Col.6/ll.57-65 and Col.7/line 5, wherein the ballast microprocessor is re-programmable, the latter being an inherent property of a microprocessor.

► Claim 13 recites a plurality of sensing means, instead of a single sensing unit as recited in claim 11. Although none of the cited references disclose a plurality of ribs, the court held that mere duplication of parts has no patentable significance unless a new and unexpected result is produced. *In re Harza*, 274 F.2d 669, 124 USPQ 378 (CCPA 1960).

► Regarding claim 14 and 22, Baarman's sensor unit(s) includes a fluid flow indication (104), as recited in Col.6/ll.66-67 & Col.7/ll.16-19, and a UV light level indication through UV light RF identification transponder 126, as recited in Col.7/ll.6-15.

► Regarding claim 24, Baarman's intelligent driver (102+14) shown in Fig.3 includes an alarm (116) for indicating system malfunction to a user, as recited in Col.7/ll.54-63.

► Regarding claim 25, Baarman's system includes an safety interlock (190) for detecting improper connection of the UV emitter, as shown in Fig.5 and recited in Col. 10/ll.15-52.

► Regarding claim 27 Baarman's indicator includes a display (106) shown in Fig.3 for displaying at east one of text and graphics, as recited in Col.7/ll.19-24.

2. Claims 5, 7, 15 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Baarman in view of Wekhof, and further in view of Cohen (USPAT 6,317,051).

Baarman as modified by Wekhof teaches all the limitations of claims 5, 7, 15 and 17, as previously applied to claims 1-4, 11-14 and 21-27, except the recitation of

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sound/vibration sensing means. Cohen shows in Fig.1 the use of a sound/vibration detector (16) being connected to a controller system (22), as recited in Col.2/ll.48-52, Col.3/ll.6-14 and Col.4/ll.2-18; the sound/vibration sensor being typically a microphone, as expressly recited in Col.4/ll.2-3.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to adopt Cohen's teaching of adding a microphone or other vibration/sound detector/sensor as a second flow detection device to Baarman's fluid treatment system as previously modified by Wekhof, in order to detect any possible leak in the flow system, as taught by Cohen in Col.4/ll.5-18.

3. Claims 6, 8-10, 16 and 18-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Baarman in view of Wekhof and Cohen, and further in view of general skill in the art.

Baarman as modified by Wekhof and Cohen teaches all the limitations of claims 6, 8-10, 16 and 18-20, as previously applied to claims 5, 7, 15 and 17, except the recitation of sound/vibration generation means.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to add a sound/vibration generation means to Baarman's fluid treatment system as already modified by Wekhof and Cohen, in order to test the sound/vibration sensing means for proper operation, since the necessity of such a test is well known in the art, whereas the use of sound/vibration generation means for self-diagnosis is also within skill in the art.

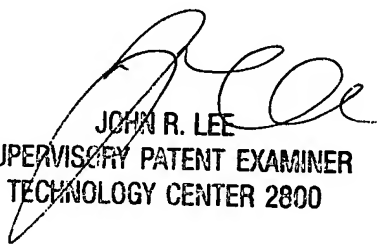
***Communications***

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Bernard E Souw whose telephone number is 571 272 2482. The examiner can normally be reached on Monday thru Friday, 9:00 am to 5:00 pm..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John R Lee can be reached on 571 272 2477. The central fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306 for regular communications as well as for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703 308 0956.

bes  
October 27, 2004

  
JOHN R. LEE  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2800